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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/583,078

05/14/2007

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Q95333

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23373 7590 09/02/2010
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EXAMINER

MAKI, STEVEN D

ART UNIT

PAPER NUMBER

1791

NOTIFICATION DATE

DELIVERY MODE

09/02/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/583,078	Applicant(s) TOMITA, AKIRA	
	Examiner Steven D. Maki	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-7 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,3,6 and 7 is/are rejected.
- 7) ☒ Claim(s) 4 and 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2010 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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1) Claim 5 is objected to because of the following informalities: In claim 5 line 6, after "perpendicular or approximately perpendicular to the", "the subsurface of the tread" should be --the surface of the tread--. See specification at page 8 last line to page 9 line 1 and lines 5-6 of claim 4. More simply, "the subsurface" on line 6 of claim 5 should be --the surface--. This change corrects an obvious informality. Appropriate correction is required.

2) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3) **Claims 1, 3, 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al (US 6,591,880) in view of Adam et al (US 5,211,781) and Japan 905 (JP 2002-254905).**

Matsumoto et al discloses a heavy duty pneumatic tire having a tread comprising ribs wherein fine grooves having a width of, for example, 1.2 mm are formed in the center rib 6 such that a rib portion 6A is formed. The rib portion 6A may have a width such as 10 mm and may be offset from the tread surface by a distance delta such as 1 mm. See Figure 3, Figure 4, and table 1. **Matsumoto et al teaches providing the offset rib portion 6A only at the center (equatorial plane) of the tire tread.** The rib portion 6A may be considered to be located in a "center circumferential groove" since it is separated from the "adjoining ribs" by the fine grooves and is offset from the tread surface by the distance delta. The claimed three circumferential grooves read on

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circumferential groove 2, the "center circumferential groove" in which rib portion 6A is located and circumferential groove 3.

As to claim 1, it would have been obvious to one of ordinary skill in the art to provide Matsumoto et al's heavy duty pneumatic tire such that the rib portion 6A has a width of 2 to 10% of the tread width and is narrower than a width of the "adjoining ribs" since (1) Matsumoto et al teaches forming the offset rib portion 6A having a width such as 10 mm in a center rib of a heavy duty pneumatic tire to improve resistance to uneven wear, (2) Adam et al teaches that pneumatic tire for a large truck (heavy duty vehicle) may comprise a center rib having a width of 15-25% of the tread width (e.g. a width of 48 mm for a tread width of 240 mm) and (3) Japan 905 teaches locating an offset rib portion 5a for preventing wear between two wider ribs 2a of a tread for a heavy load tire. It is noted that $10 \text{ mm} / 240 \text{ mm} \times 100\% = 4.2\%$. It is also noted that disposing 1.2 mm wide fine grooves in a 48 mm wide center rib to form a 10 mm wide rib portion 6A results in "adjoining ribs" having a width of 17.8 mm.

Furthermore, it would have been obvious to one of ordinary skill in the art to provide the offset rib portion 6A such that the height of the offset rib portion 6A is between 70% of the groove depth and 3 mm less than the groove depth since (1) Matsumoto et al teaches forming the rib portion 6A for improving resistance to wear such that the rib portion 6A has a height of for example 90% of the groove depth ($90\% = 9 \text{ mm} / 10 \text{ mm} \times 100\%$) and the rib portion 6A is offset from the tread surface by a distance delta of for example 1 mm and (2) Japan 905 teaches providing a rib portion 5a for preventing wear at the center of a tread for a heavy load pneumatic tire such that

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this rib portion 5a is offset from the tread surface by a distance H1 of 1 to 6 mm (Figures 1 and 2, abstract and paragraphs 10 and 13 of machine translation).

As to claim 3, it would have been obvious to provide Matsumoto et al's tread for a heavy duty pneumatic tire with circumferential thin grooves at the outer sides of the opposite side circumferential main grooves since Japan 905 suggests providing the tread of a heavy load tire with narrow circumferential grooves 4 to prevent wear (paragraph 13 of machine translation).

As to claims 6 and 7, it would have been obvious to one of ordinary skill in the art to provide the tread of Matsumoto et al's heavy duty tire with the claimed sipes since (1) Matsumoto et al teaches providing "one end opening" lateral grooves 13 in the "adjoining ribs" and (2) Japan 905 suggests adding one end opening sipes to ribs of a tread for a heavy load tire to further control wear (paragraph 20 of machine translation).

Allowable Subject Matter

4) **Claims 4 and 5 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. It is noted that "the subsurface" on line 6 of claim 5 should be changed to --the surface-- to correct an obvious informality.**

Remarks

5) Applicant's arguments with respect to claims 1, 3, 6 and 7 have been considered but are moot in view of the new ground(s) of rejection.

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The rejection using Japan 608 as set forth in the last office action is withdrawn because there is no reason to provide Japan 608's offset center land portion with a width narrower than the adjoining ribs.

As to "the width of the thin rib-shaped uneven abrasion sacrificing part is narrower than a width of adjoining ribs", note the new ground of rejection.

6) Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven D. Maki whose telephone number is (571) 272-1221. The examiner can normally be reached on Mon. - Fri. 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven D. Maki/
Primary Examiner, Art Unit 1791

Steven D. Maki
August 29, 2010